



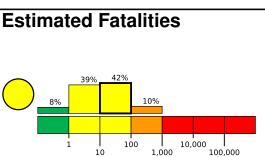
# **PAGER**

# M 5.4, 11 km WNW of San Bartolo, Peru

Origin Time: 2022-05-12 21:55:48 UTC (Thu 16:55:48 local) Location: 12.3599° S 76.8900° W Depth: 55.9 km

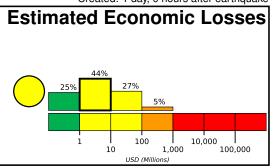
Created: 1 day, 0 hours after earthquake

Version 3



Yellow alert for shaking-related fatalities and economic losses. Some casualties and damage are possible and the impact should be relatively localized. Past yellow alerts have required a local or regional level re-

Estimated economic losses are less than 1% of GDP of Peru.



**Estimated Population Exposed to Earthquake Shaking** 

|  |                          |          |         |        |          | _        |             |            |          |          |
|--|--------------------------|----------|---------|--------|----------|----------|-------------|------------|----------|----------|
| ESTIMATED POPULATION<br>EXPOSURE (k=x1000) |                          | _*       | 2,454k* | 1,468k | 8,922k   | 1,083k   | 8k          | 0          | 0        | 0        |
| ESTIMATED<br>MERCALLI                      | MODIFIED<br>INTENSITY    |          | II-III  | IV     | V        | VI       | VII         | VIII       | IX       | X+       |
| PERCEIVED                                  | SHAKING                  | Not felt | Weak    | Light  | Moderate | Strong   | Very Strong | Severe     | Violent  | Extreme  |
| POTENTIAL                                  | Resistant<br>Structures  | None     | None    | None   | V. Light | Light    | Moderate    | Mod./Heavy | Heavy    | V. Heavy |
| DAMAGE                                     | Vulnerable<br>Structures | None     | None    | None   | Light    | Moderate | Mod./Heavy  | Heavy      | V. Heavy | V. Heavy |

<sup>\*</sup>Estimated exposure only includes population within the map area.

## Population Exposure

12.2°S

13.4°S

#### population per 1 sq. km from Landscan **Structures**

50 btanjalla 100

Overall, the population in this region resides in structures that are highly vulnerable to earthquake shaking, though some resistant structures exist. The predominant vulnerable building types are mud wall and reinforced/confined masonry construction.

## 76.8 W Barranca 11) Carhuamayo 11.1°S lunin Tarma

Mala

mperial

### **Historical Earthquakes**

| Date       | Dist. | Mag. | Max        | Shaking |
|------------|-------|------|------------|---------|
| (UTC)      | (km)  | Ū    | MMI(#)     | Deaths  |
| 1996-11-12 | 322   | 7.7  | VIII(2k)   | 14      |
| 1974-10-03 | 69    | 7.6  | VIII(43k)  | 78      |
| 2007-08-15 | 117   | 8.0  | VIII(493k) | 514     |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

# **Selected City Exposure**

| from GeoNames.org |               |            |  |  |
|-------------------|---------------|------------|--|--|
| MMI               | City          | Population |  |  |
| VII               | San Bartolo   | 6k         |  |  |
| VI                | Punta Hermosa | <1k        |  |  |
| VI                | Pucusana      | <1k        |  |  |
| VI                | San Luis      | 9k         |  |  |
| ٧                 | La Molina     | <1k        |  |  |
| ٧                 | Lima          | 7,737k     |  |  |
| ٧                 | Callao        | 813k       |  |  |
| Ш                 | Huacho        | 55k        |  |  |
| Ш                 | Huancayo      | 377k       |  |  |
|                   |               |            |  |  |

bold cities appear on map.

| IVIIVII | Oity           | i opulation |
|---------|----------------|-------------|
| VII     | San Bartolo    | 6k          |
| VI      | Punta Hermosa  | <1k         |
| VI      | Pucusana       | <1k         |
| VI      | San Luis       | 9k          |
| ٧       | La Molina      | <1k         |
| ٧       | Lima           | 7,737k      |
| ٧       | Callao         | 813k        |
| Ш       | Huacho         | 55k         |
| Ш       | Huancayo       | 377k        |
| Ш       | Cerro de Pasco | 79k         |
| Ш       | Ica            | 247k        |
|         |                |             |

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

Huaral

https://earthquake.usgs.gov/earthquakes/eventpage/us6000hkpv#pager

Event ID: us6000hkpv

(k = x1000)